Dear FCC Commissioners:

I am writing to you today because of my concern over Dockets 03-104 and 04-37 regarding BPL (Broadband over Power Lines). To transmit broadband information over present power lines may sound like great idea, since it would not require any significant infrastructure changes or additions and there are obvious commercial advantages for some. Appearances can be deceiving; as the old saying goes, “you don’t get something for nothing.” BPL is no exception.

BPL uses modulated broadband signals and uses the power lines as the medium for transmission. Although it is said that BPL is within the Part 15 rules, the situation is much more complex. When the Part 15 rules were written years ago, broadband transmission was not considered. Basically 20+ years ago, virtually all transmissions were single carrier, narrow band. Part 15 rules stated that the unlicensed carried had to be below a certain limit to minimize interference. This limit varied from band to band. A typical number would be 10,000 uV at 1 meter. With a single carrier, that may not amount to much. However, with a broadband transmission of perhaps 5 MHz wide, the energy contained in that carrier is many magnitudes greater. Yet at any single frequency it would still be within the Part 15 rules.

Part 15 devices, such as light dimmer switches, cause havoc to any AM radio and TV. Having BPL will be many orders of magnitude worse than the noisiest light dimmer. AM radio reception will change as we know it today. No longer will one be able to use an AM radio inside a house with the BPL signal being carried by the 120 VAC power lines. All you would hear is a buzz. Interference to Amateur Radio HF communications, including emergency communications, will be crippling.

Clearly, a more long-term solution is fiber optics to within the last mile and then use a transceiving node such as 802.11g as the final link. This is already being implemented in most major cities (most commonly known as a “hot spot”) with great success. The data rates are much faster, it is wireless (at microwave frequencies), it causes minimum interference to critical AM broadcast, commercial, and Amateur Radio emergency communications.

I can’t emphasize enough how important it is to NOT take this “easy road” approach of BPL. In this time of heightened Homeland Security, anything that will negatively impact disaster communications, of which Amateur Radio is a vital part, should be judiciously avoided. Just ask any Red Cross chapter or the CDF (California Division of Forestry) how vital Amateur Radio is to disaster communications.

Sincerely,

William Mercer WB6FEH